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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
09/123,620	07/28/98	ELFORD H	HEBVR-5

EXAMINER

HM32/0521

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ART UNIT	PAPER
1623	25

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Commissioner of Patents and Trademarks

The Reply Brief of April 30, 2001 has been received and entered. No further response by the Examiner is deemed necessary. The case will be forwarded to the Board of Patent Appeals and Interferences for decision on the appeal.

Kathleen Kahler Fonda, Ph.D.
Primary Examiner
Art Unit: 1623

PTO-90C (Rev.3-98)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Howard E. Elford

Serial No. 09/123,620

Filed: 7/28/98 Group Art Unit 1614

For: THERAPEUTIC PROCESS FOR INHIBITION OF NF-κB Examiner K.K. Fonda

Docket No. HEBVR-5

Commissioner of Patents and Trademark

Washington DC 20231

REPLY BRIEF

The Examiner continues to reject Claims 2-11 and 14 under 35 U.S.C. 103(a) as being unpatentable over VAN'T RIET et al in view of "Appellant's admission". The reference teaches methods for the preparation of the benzoic acid derivatives whose use as an inhibitors of actvated NF-κB is claimed herein. The compounds of VAN'T RIET et al are taught to be ribonucleotide reductase inhibitors and free radical scavengers. It is the Examiner's position tha Appellant, by citing VAN'T RIET et al as relevant prior art, made an "admission against interest". Appellant knows of no precedent in law or court decisions for the notion that citing relevant prior art is an admission that the claimed subject matter is anticipated or obvious. Admissions must be made with knowledge and if Appellant had believed that the reference anticipated his invention, he would have been precluded from signing the inventor's oath. Appellant believes that the Examiner's proposition that citing relevant prior art is an admission against interest is mistaken and should be dropped.

The other rejection over VAN'T RIET is based chiefly on the Examiner's opinion that a reductase inhibitor is necessarily an anti-oxidant and that anti-oxidants should obviously be chain-reaction inhibitors. Appellant submits that in this

instance the Examiner is substituting her admitted expertise for that of "one of ordinary skill in the art", as the proper standard for determining obviousness. Appellant also believes that the Examiner has used hindsight based upon Appellant's disclosure in making this rejection.

To illustrate Appellant's position, let us consider a typical free-radical chain reaction, the copolymerization of styrene and butadiene to form BUNA S, a synthetic rubber. The chain reaction is initiated by adding a peroxide, eg., dibenzoyl peroxide which splits into two free radicals, each of which reacts with a butadiene or styrene molecule to form a new free radical. Each of these reacts with the other monomer to form new free radicals and so on until the desired chain length to form a useful rubber, has been achieved. At this point in the polymerization, a chain terminator (free-radical scavenger) is added. The polymer chain now has a new terminal group which retains the unpaired electron. This new terminal group will not react with styrene or butadiene to propagate the free-radical reactin; ie., will not pass on the free electron. The chain reaction will thus terminate. Each of these chain reaction steps involves a one electron transfer (which the Examiner characterizes as an oxidation). It is the Examiner's position that this chain terminating step in which the scavenger retains the free electron, is an oxidation. Appellant submits that oxidation (or reduction) is irrelevant to this process. While the Examiner's position may be technically correct, ie., that the terminal moecule has undergone a one electron oxidation, one "of ordinary skill in the art", a technician with a high school chemistry course for example, would ever associate the term oxidation with such a chain terminating step where it is the inability of the new terminal group to pass the odd electron on to a styrene or

butadiene monomer which is critical. Oxidations to one of ordinary skill in the art would involve such reactions as the rusting of iron, dissolving silver in aqua regia or peroxiding one's hair. It is clear that the Examiner has used her superior knowledge of chemistry to attempt to bring Appellant's novel process under the aegis of "being obvious to one of ordinary skill in the art".

Furthmore, while it may be obvious to the Examiner to use an antioxidant to stop a chain reaction, Appellant wonders where, in the co-polymerization of styrene and butadiene, an anti-oxidant would have any effect on the chain reaction except possibly to destroy initially the dibenzoyl peroxide so that the chain reaction would not start. The cited prior art shows a similar approach where a peroxidase is used to destroy a hydroperoxide which might initiate the activation of NF-$_k$B in a mammalian cell. This destruction of the free-radical initiator involves an entirely different chemical process from the use of a chain reaction terminator as Appellant is claiming. While Appellant's chosen free radical scaverngers may also be anti-oxidants, it is not that property whose use Appellant is claiming, and it is a property unrelated to chain reaction polymerization.

CONCLUSION

It is Appellant's position that the Examiner is using the standard of her own highly sophisticated knowledge in place of the statuatory standard "one of ordinary skill in the art" and that no one of ordinary skill in the art would consider Appellant's claimed process obvious over the cited prior art. Claims 2-11 and 14 are clearly allowable over the cited prior art. Favorable action thereon is respectfully rerquested.

Respectfully submitted.

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Dated

4/24/01